

ENEMAX

Data Sheet

20mA AlInGaP Yellow-EY3528D- 0201

Features:

- > High brightness surface mount LED.
- > 120° viewing angle.
- > Small package outline (LxWxH) of 3.2 x 2.8 x 1.8mm.
- > Qualified according to JEDEC moisture sensitivity Level 2.
- > Compatible to IR reflow soldering.
- > Environmental friendly; RoHS compliance.



Applications:

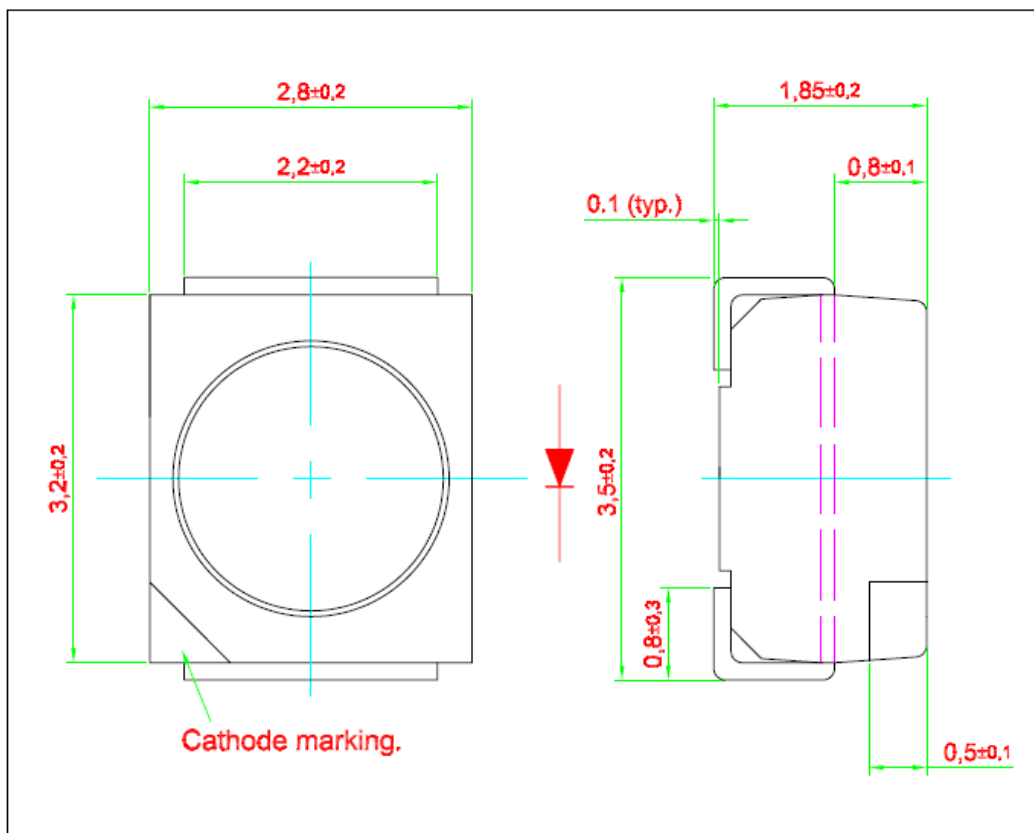
- > Automotive: interior applications, eg: switches, telematics, climate control system, dashboard, etc.
- > Consumer appliances: LCD illumination as in PDAs, LCD TV.
- > Communication: indicator and backlight in mobilephone.
- > Display: full color display video notice board.
- > Industrial: white goods (eg: Oven, microwave, etc.).

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Package Outline Dimensions



Material

	Material
Lead-frame	Cu Alloy With Ag Plating.
Package	High Temperature Resistant Plastic, PPA.
Encapsulant	Epoxy
Soldering Leads	Sn-Sn Plating.

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Optical Characteristics at Tj=25°C

Part Number	Color	Luminous Intensity @ 20mA IV (mcd)			Viewing Angle
		Min	Typ.	Max	
EY3528D-0201-RT2-1	Yellow	112.5	224.0	450.0	120°
EY3528D-0201-P2R1-1	Yellow	56.0	90.0	140.0	120°

1. Luminous flux is measured with an accuracy of $\pm 11\%$.
2. Wavelength binning is carried for all units as per the wavelength-binning table. Only one wavelength group is allowed for each reel.

Electrical Characteristics at Tj=25°C

Part Number	Vf @ If=20mA		
	Min. (V)	Typ. (V)	Max. (V)
EY3528D-0201	1.6	1.9	2.3

Forward voltage, Vf is measured with a current pulse of 1 ms and an accuracy of ± 0.1 V.

Absolute Maximum Ratings

	Maximum Value	Unit
DC forward current.	30	mA
Peak pulse current	500	mA
Reverse voltage.	12	V
LED junction temperature.	125	°C
Operating temperature.	-40 ... +100	°C
Storage temperature.	-40 ... +100	°C
ESD Threshold (HBM)	2	V
Power dissipation (at room temperature)	75	mW
Thermal resistance • Junction / ambient, R_{th} JA • Junction/ solder point, R_{th} JS (Mounted on dual side plated through hole FR4 PCB; total Cu area> 900mm ²)	500 280	K/W K/W

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Luminous Intensity Group at Tj=25°C.

Bin	Luminous Intensity @ 20mA IV (mcd)	
	Min	Max
P2	56.0	71.5
Q1	71.5	90.0
Q2	90.0	112.5
R1	112.5	140.0
R2	140.0	180.0
S1	180.0	224.0
S2	224.0	285.0
T1	285.0	355.0
T2	355.0	450.0

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Wavelength Grouping at Tj=25°C

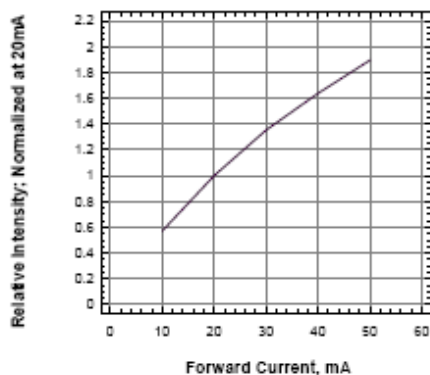
Color	Group	Wavelength distribution (nm)
Yellow	Full	582-594
	W	582-585
	X	585-588
	Y	588-591
	Z	591-594

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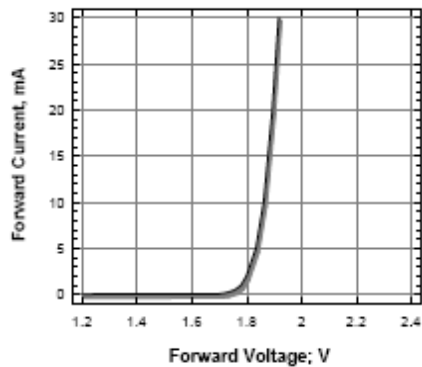
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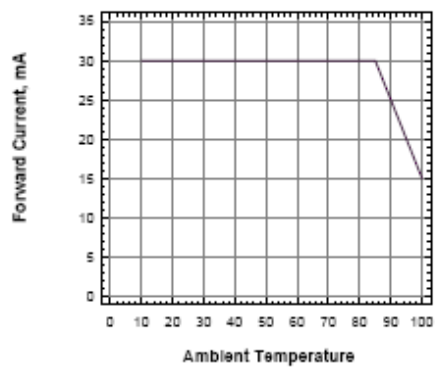
Relative Luminous Intensity Vs Forward Current



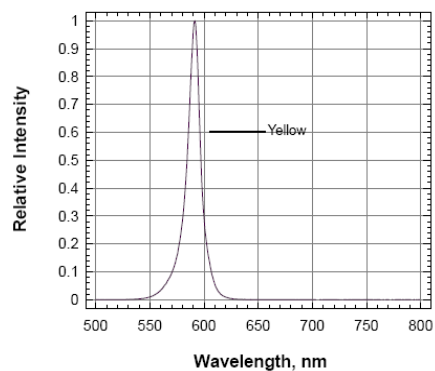
Forward Current Vs Forward Voltage



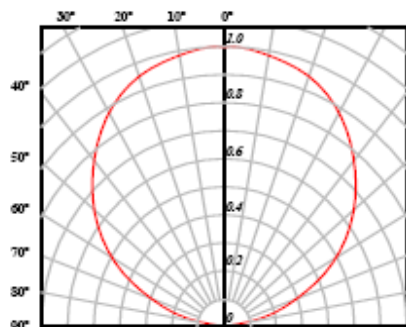
Maximum Current Vs Temperature



Relative Intensity Vs Wavelength



Radiation Pattern

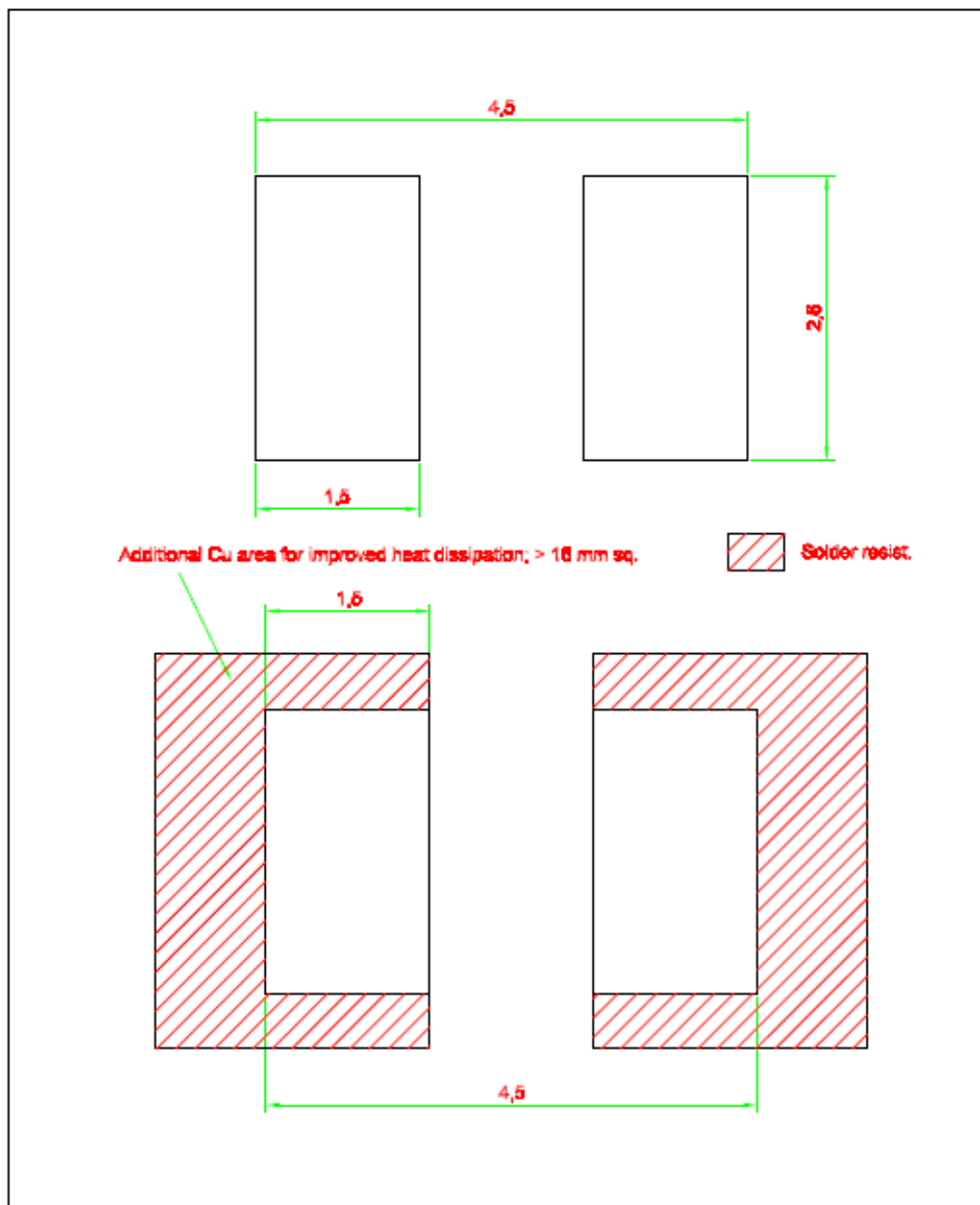


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Recommended Solder Pad



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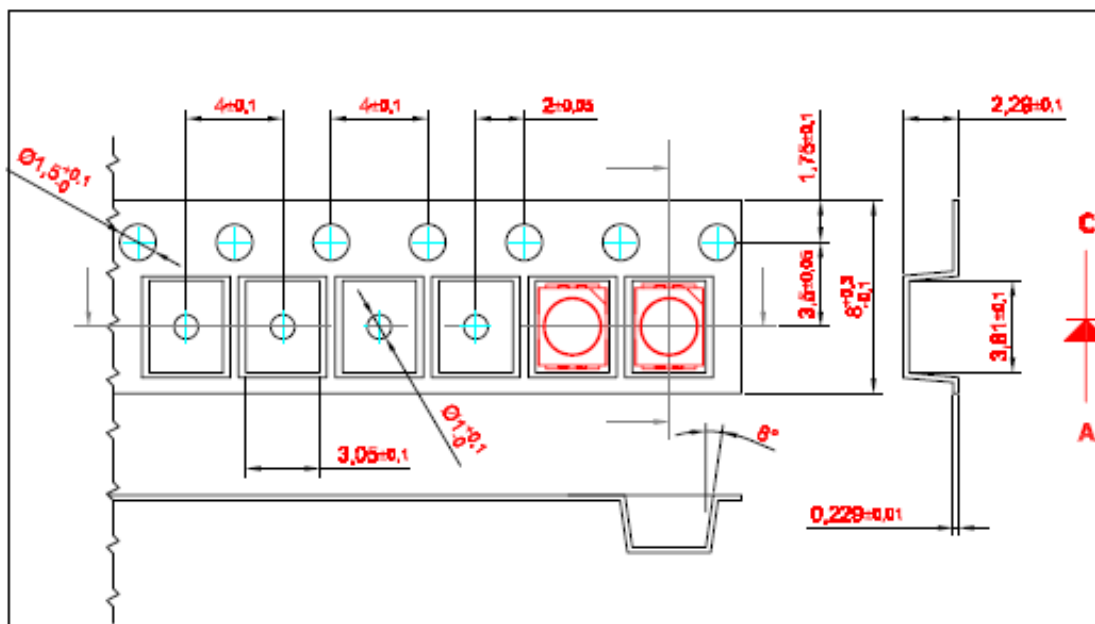
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Taping And Orientation

Reels come in quantity of 2000 units.

Reel diameters are 180 mm.

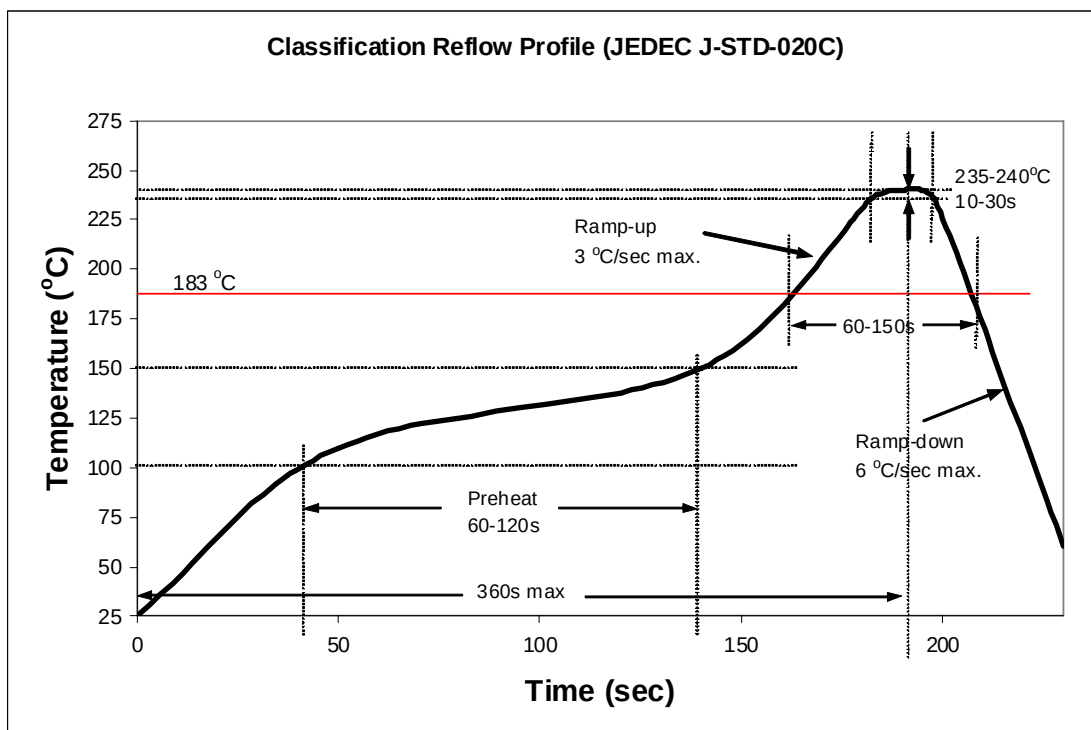


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Recommended Sn-Pb IR-Reflow Soldering Profile



Recommended Pb Free IR-Reflow Soldering Profile.

